

ABSTRACT OF THE DISCLOSURE

[044] An apparatus and method for pumping and optionally mixing of small quantities of biological fluid wherein the pumping mechanism is segregated from the biological fluid being pumped. The micro-pump pushes the biological fluid by compressing a cartridge housing the blood and reagents with collapsible walls with a roller or ball bearing, synchronized perpendicular plungers, or an acutely-angled member to push the biological fluid by collapsing the walls of the cartridge in the direction of flow.